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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/533,801  | 05/04/2005  | Torsten Werner       | 1509-1049           | 6078             |
| 466   | 7590        | 03/07/2006           | EXAMINER            |                  |
| YOUNG & THOMPSON<br>745 SOUTH 23RD STREET<br>2ND FLOOR<br>ARLINGTON, VA 22202 |             |                      | ZHOU, JIA QI        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 3643                |                  |
| DATE MAILED: 03/07/2006   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                       |  |  |
|------------------------------|---------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/533,801  | <b>Applicant(s)</b><br>WERNER, TORSTEN |  |
|                              | <b>Examiner</b><br>Jia-Qi (Josh) Zhou | <b>Art Unit</b><br>3643                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/4/05</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**1. Claims 1-2, 5-7, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,836,681 to DuBay.**

Regarding claim 1, the reference of DuBay discloses a cartridge (1) operative for expulsion of a projectile from a reusable shell case (2) formed with a cartridge seat (9) that is connected with a low-pressure chamber (4) via an opening (the area adjacent to 16 as seen in Fig 8) through a front wall (represented by the internal shoulder of the casing, 26) of the cartridge seat, the cartridge having a primer (19) and containing propellant charge (18) in a cylindrical container that is form-fitted into the cartridge seat, characterized by a separate insert in the form of the pressure containment wall (7, as seen in Figs 2,6,7) inserted in a front end portion of the cartridge, the separate insert (7) having passage (8), the separate insert (7) also have forward shoulder (where reference numeral 7 is pointing in Fig 6) as seen in Figs. 2,6,7 that is in contact with the front wall (26).

Regarding claim 2, the insert (characterized by rear section (3) but not including outer casing (2) as seen in Figs. 2,6,7) is a cylindrical portion insertable into the end of the cartridge, the outer diameter of said portion seals against the cartridge (2), and a cylindrical portion (right

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half of (7)) protruding there from and dimensioned to be received in the opening through the wall (26) of the cartridge seat, a shoulder (where reference numeral 7 is pointing in Fig.6) radially extending between the two portions, and an axial passage (8) going there through.

Regarding claims 5 and 7, the reference of DuBay discloses a membrane in the form of the wad (17) attached to the inner end of the insert, sealing the passage (8).

Regarding claims 6, 10 and 13, the cartridge (1) discloses the insert initially is depressed into the cartridge only to a depth that gives the cartridge an oversized axial length with respect to the cartridge-seat (9) as seen in Figs. 2, 6 and 7.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2. Claims 3-4, 8-9, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,836,681 to DuBay.**

Regarding claim 3, the reference of DuBay discloses all of the parts from above, and also mentioned that parts of the cartridge “may be made of any suitable metal such as aluminum” (col.3, lines 8-10). The fact that the insert is formed from a material of less hardness than the cartridge seat was not disclosed. It is well known in the art through research and testing that the composition of cartridge insert does not have to be the same as the cartridge casing itself. The selection of various “metals such as aluminum” (along with countless alloys containing differing

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amounts of aluminum) is simply design choice in order to reduce the weight of the cartridge and enhanced performance. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a material of less hardness than the cartridge seat with the purpose of reducing weight and enhance the performance of the cartridge.

Regarding claim 4, the reference of DuBay as modified, discloses the insert portion mentioned in the previous paragraph as made of aluminum or any suitable metal.

Regarding claims 8 and 9, the reference of DuBay as modified, discloses a membrane in the form of a wad (17) attached to the inner end of the insert, sealing the passage (8).

Regarding claims 11 and 12, the reference of DuBay as modified, discloses the insert initially is depressed into the cartridge only to a depth that gives the cartridge an oversized axial length with respect to the cartridge-seat (9) as seen in Figs. 2, 6 and 7.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to replaceable cartridge case design:

U.S. Patent No. 4,762,068 to Lubbers

U.S. Patent No. 5,492,063 to Dittrich

U.S. Patent No. 5,979,331 to Casull

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jia-Qi (Josh) Zhou whose telephone number is 571-272-3096. The examiner can normally be reached on Monday thru Friday 8:30am-5pm.

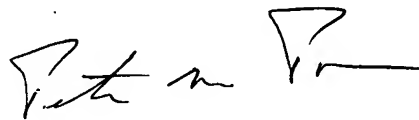
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jia-Qi (Josh) Zhou  
Examiner  
Art Unit 3643

jz  
3/3/06

A handwritten signature in black ink, appearing to read "Peter M. Poon", written in a cursive style.

**PETER M. POON**  
**SUPERVISORY PATENT EXAMINER**

3/6/06